

### **REMARKS**

Claims 8, 19, 22, and 54 have been amended. New claims 62-77 have been added. Accordingly, claims 8, 19, 22, 54, 57, 59, and 62-77 are presently pending in this application. The status of the application in light of the May 2, 2007 Office Action is as follows:

(A) Claims 8, 54, and 57 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,782,675 ("Southwick"); and

(B) Claims 19, 22, and 59 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Southwick in view of U.S. Patent No. 5,186,394 ("Tsuji").

The undersigned attorney would like to thank Examiner Rachuba for participating in a telephonic Examiner Interview on 29 June, 2007. During the Interview, the parties discussed the references and the pending claims. Additionally, the parties discussed the differences between a planarizing cycle and a conditioning cycle, for example, as discussed in paragraph 26 of the present application and in the Southwick reference. No agreement was reached during the interview, however, the Examiner indicated that further consideration would be given to the lack of motivation for combining the Southwick reference with the Tsuji reference. This paper constitutes the applicant's summary of that Interview. If the Examiner notes any deficiencies with regard to this summary, the Examiner is encouraged to contact the undersigned attorney.

A. Response to the Section 102(b) Rejection Under Southwick

The discussion of Southwick herein addresses the relevant embodiments disclosed in the specification and figures of Southwick, and in no way is a characterization or interpretation of the claims in Southwick. The claims in Southwick, moreover, are expressly not limited to the embodiments disclosed in the specification of Southwick. Therefore, the claims in Southwick are to be interpreted without reference to this paper.

- (1) Claim 8 is Directed Toward a Planarizing Machine With a Nozzle Movable Between a First Position to Discharge the Planarizing Solution at a First Angle Relative to the Surface of the Pad and a Second Position to Discharge the Planarizing Solution at a Second Angle.

Amended claim 8 is directed toward a planarizing machine that includes a table having a support surface and a processing pad on the support surface. The machine further includes a carrier assembly having a head configured to hold a microelectronic workpiece and a drive assembly carrying the head relative to the support surface. The machine still further includes a solution dispenser separate from the head. The solution dispenser is configured to discharge a planarizing solution onto a plurality of locations on the pad. The solution dispenser includes a support extending over the pad at a location spaced apart from a travel path of the head, a fluid passageway carried by the support through which a planarizing solution can flow, and a nozzle carried by the support and in fluid communication with the fluid passageway. The nozzle is rotatably coupled to the support to be movable between a first position to discharge the planarizing solution onto a surface of the pad at a first angle relative to the surface of the pad and a second position to discharge the planarizing solution at a second angle relative to the surface of the pad, wherein the second angle is different from the first angle.

- (2) Claim 8 is Patentable for At Least the Reason That it Includes a Planarizing Machine With a Nozzle Movable Between a First Position to Discharge the Planarizing Solution at a First Angle Relative to the Surface of the Pad and a Second Position to Discharge the Planarizing Solution at a Second Angle.

Claim 8 is patentable for at least the reason that it includes a planarizing machine with a nozzle rotatably coupled to a support to be movable between a first position to discharge the planarizing solution onto a surface of the pad at a first angle relative to the surface of the pad and a second position to discharge the planarizing solution at a second angle relative to the surface of the pad. The second angle is different from the first angle. Southwick does not teach or suggest a planarizing machine with a nozzle rotatably coupled to a support to be movable between a first position to discharge the planarizing solution onto a surface of the pad at a first angle relative to the surface of the pad and a second position to discharge the planarizing solution at a second angle relative to the surface of the pad.

Claim 8 is also patentable under section 103 over Southwick because a person skilled in the art would not be motivated to modify Southwick to have a freely pivoting nozzle. As discussed below, the CMP machine of Southwick would not be modified to include a freely pivoting nozzle because the CMP machine in Southwick is able to distribute the planarizing solution to the appropriate areas of the abrasive pad without the added complexity of a pivoting nozzle. Accordingly, one skilled in the art would not be motivated to modify the CMP machine of Southwick to include a freely pivoting nozzle. Thus, for at least these reasons, claim 8 is patentable over the cited references. Claims 57 and 62-65 are patentable over Southwick as depending from claim 8 and for the additional features of these claims. Amended claim 54 includes features, *inter alia*, similar to those of claim 8. For at least this reason, claim 54 is also patentable over the cited references. Claims 74-77 depend from claim 54, and for at least this reason these claims are also patentable over the cited references.

B. Response to the Section 103(a) Rejection Under Southwick in View of Tsuij

- (1) Claim 19 is Directed Toward a Planarizing Machine With a Nozzle Movable Between a First Position to Discharge the Planarizing Solution at a First Angle Relative to the Surface of the Pad and a Second Position to Discharge the Planarizing Solution at a Second Angle.

Amended claim 19 is directed toward a planarizing machine that includes a table having a support surface, a processing pad on the support surface, and a carrier assembly having a head configured to hold a microelectronic workpiece and a drive assembly carrying the head. The planarizing machine further includes a solution dispenser separate from the head. The solution dispenser has a support extending over the pad and a distributor carried by the support. The distributor is configured to discharge a planarizing solution from a plurality of locations along the support. The support comprises an elongated arm and a fluid passageway carried by the arm through which a planarizing solution can flow. The distributor further comprises a nozzle carried by the arm and in fluid communication with the fluid passageway. The nozzle is rotatably coupled to the arm to be movable between a first position to discharge the planarizing solution onto a surface of the pad at a first angle relative to the surface of the pad and a second position to discharge the planarizing solution at a second angle relative to the surface of the pad. The second angle is different from the first angle.

- (2) Tsuji Discloses a Machining Tool Liquid Spray Apparatus for Spraying Lubricant or Washing Water Over a Desired Location During Operation of an Associated Machining Tool.

Tsuji discloses a machining tool liquid spray apparatus for spraying lubricant or wash water over a desired location during operation of an associated machining tool (Abstract; col. 4, line 66-col. 5, line 2). The liquid spray apparatus includes a liquid spray assembly operatively coupled to an orientation control unit (col. 2, lines 57-66). The orientation control unit can vary a portion of the orientation of the spray assembly without human intervention during the operation of the machining tool (col. 2, lines 28-32; col. 4, line 66-col. 5, line 2).

- (3) Claim 19 is Patentable for At Least the Reason That it Includes a Planarizing Machine With a Nozzle Movable Between a First Position to Discharge the Planarizing Solution at a First Angle Relative to the Surface of the Pad and a Second Position to Discharge the Planarizing Solution at a Second Angle.

Claim 19 is patentable for at least the reason that it includes a planarizing machine with a nozzle rotatably coupled to an arm to be movable between a first position to discharge the planarizing solution onto a surface of the pad at a first angle relative to the surface of the pad and a second position to discharge the planarizing solution at a second angle relative to the surface of the pad. The second angle is different from the first angle. Southwick does not teach or suggest a planarizing machine with a nozzle rotatably coupled to an arm to be movable between a first position to discharge the planarizing solution onto a surface of the pad at a first angle relative to the surface of the pad and a second position to discharge the planarizing solution at a second angle relative to the surface of the pad.

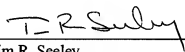
Additionally, as discussed above, a person skilled in the art would not be motivated to modify Southwick to have the freely pivoting nozzle of Tsuji because the CMP machine in Southwick is able to distribute the planarizing solution to the appropriate areas of the abrasive pad without the added complexity of a pivoting nozzle. Accordingly, one skilled in the art would not be motivated to modify the CMP machine of Southwick to include a freely pivoting nozzle. Thus, for at least these reasons, amended claim 19 is patentable over the cited references. Claims 59 and 66-69 depend from claim 19. For at least this reason, these claims are also patentable over the cited references. Claim 22 include features, *inter alia*, similar to

those of claim 19. For at least this reason, claim 22 is also patentable over the cited references. Claims 70-73 depend from claim 22. For at least this reason, these claims are also patentable over the cited references.

In view of the foregoing, the pending claims comply with the requirements of 35 U.S.C. § 112 and are patentable over the applied art. The Applicants accordingly request reconsideration of the application and a Notice of Allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to contact Tim Seeley at (206) 359-6477.

Respectfully submitted,  
Perkins Coie LLP

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